Indiana Crop & Weather Report

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CROP REPORT FOR WEEK ENDING SEPTEMBER 5

Corn and soybean fields are drying down rapidly and advancing toward maturity, according to the Indiana Agricultural Statistics Service. Corn harvest is 2 percent complete and soybean harvest is underway in a few fields. Major activities during the week included harvesting tobacco, selling grain, baling hay, mowing roads, preparing equipment and care of livestock.

CORN

Corn **condition** declined from last week with 29 percent of the crop rated good to excellent compared with 63 percent at this time last year. Ninety-three percent of the corn acreage is in the **dent** stage compared with 73 percent last year and 57 percent for the 5-year average. Twenty-seven percent of the corn acreage is **mature** compared with 26 percent last year and 11 percent for the average. By region, 17 percent of the corn acreage is mature in the north, 28 percent in the central and 44 percent in the south.

SOYBEANS

Soybean **condition** also declined from last week and is rated 25 percent good to excellent compared with 60 percent last year. Virtually all of the soybean acreage is **setting pods.** Twenty-eight percent of the soybean acreage is **shedding leaves** compared with 29 percent last year and 12 percent for the average. By region, 26 percent of the soybean acreage is shedding leaves in the north, 28 percent in the central and 29 percent in the south. Six percent of the soybean crop is **mature** compared with 17 percent a year ago and 5 percent for average.

OTHER CROPS

Pasture condition was rated 2 percent good, 26 percent fair, 38 percent poor and 34 percent very poor. Third cutting of **alfalfa** hay is virtually complete and some farmers have completed fourth cuttings of alfalfa hay. **Tobacco** harvest is 55 percent complete compared with 43 percent for last year and 34 percent for average.

DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 7.0 days were rated **suitable for fieldwork** . **Topsoil moisture** was rated 45 percent very short, 42 percent short and 13 percent adequate. **Subsoil moisture** was rated 44 percent very short, 44 percent short and 12 percent adequate.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
	Percent			
Corn Dent	93	74	73	57
Corn Mature	27	10	26	11
Corn Harvested	2	NA	NA	NA
Soybeans Shedding Lv	28	11	29	12
Soybeans Mature	6	NA	17	5
Tobacco Harvested	55	45	43	34

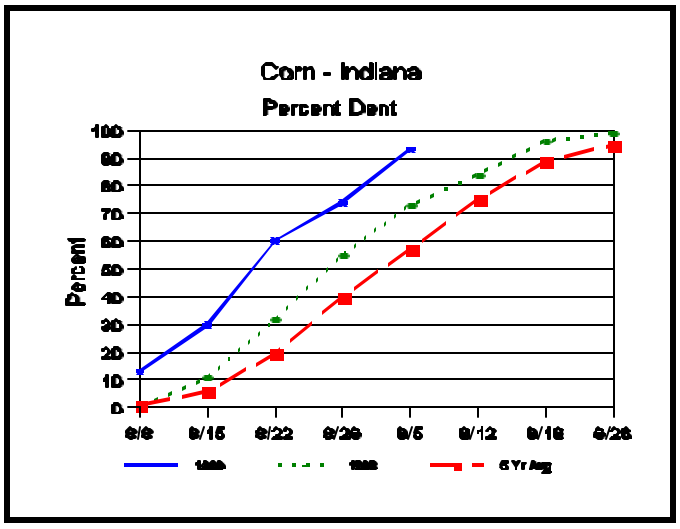
CROP CONDITION

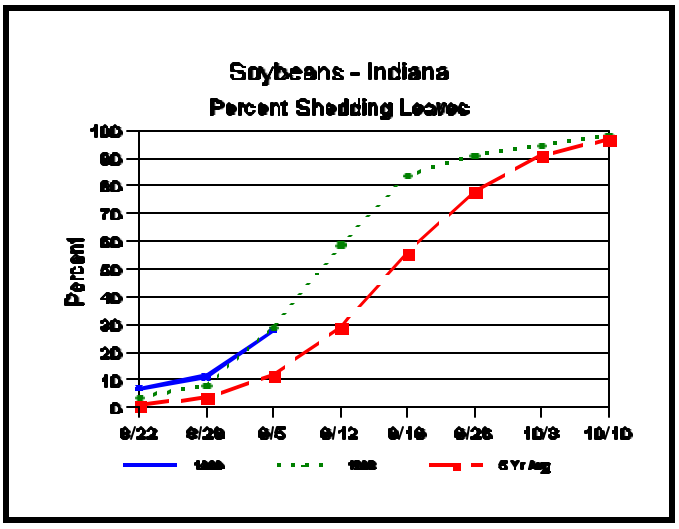
Crop	Very Poor	Poor	Fair	Good	Excel-lent
	Percent				
Corn	8	21	42	26	3
Soybeans	8	21	46	23	2
Pasture	34	38	26	2	0

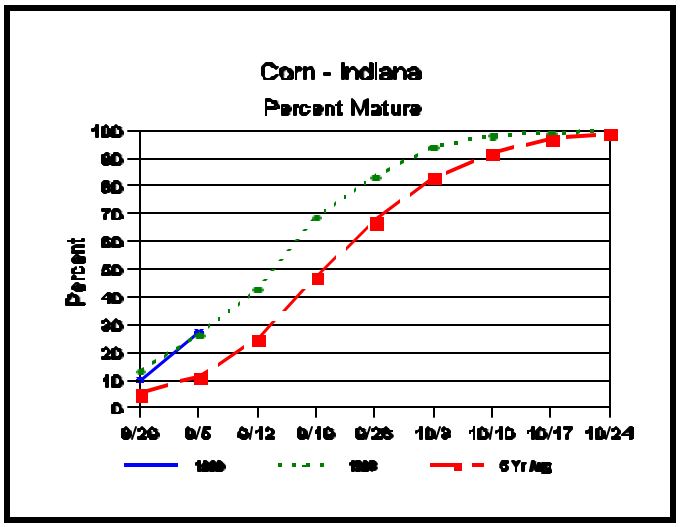
SOIL MOISTURE

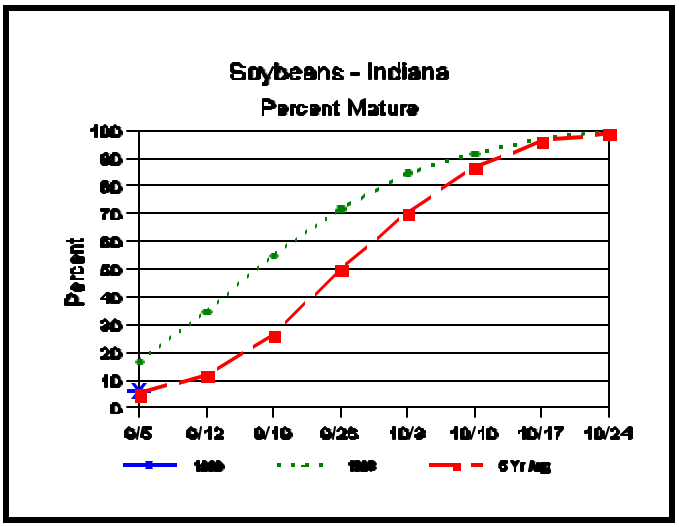
	This Week	Last Week	Last Year
	Percent		
Topsoil			
Very Short	45	28	16
Short	42	43	46
Adequate	13	29	37
Surplus	0	0	1
Subsoil			
Very Short	44	35	10
Short	44	47	37
Adequate	12	18	52
Surplus	0	0	1

--Ralph W. Gann, State Statistician
--Bud Bever, Agricultural Statistician
E-Mail Address: nass-in@nass.usda.gov
http://info.aes.purdue.edu/agstat/nass.html









Droopy Ears in Corn

Ears of corn normally remain erect until some time after physiological maturity has occurred (black layer development), after which the ear shanks eventually collapse and the ears decline or 'droop' down. In recent weeks, corn field connoisseurs have reported droopy ears in fields that have not yet reached physiological maturity.

Droopy ears are cute on certain breeds of dogs, but droopy ears on corn plants prior to physiological maturity are a signal that grain fill has slowed or halted. Premature ear declination (the fancy term for this problem) results in premature black layer formation, light-weight grain, and ultimately lower grain yields per acre.

What Causes Droopy Ears?

Droopy ears are often observed during years with significant drought stress during grain fill. Similar instances of premature ear declination occurred during the major drought of 1991 and minor drought of 1995. The plants, including ear shanks, appear to prematurely die before the grain has technically matured. The death of the ear shank tissue plus the weight of the immature ear combine to "persuade" the ear to decline prematurely.

During the minor drought of 1995, some of the collapsed ear shanks also had 1 or more European corn borer larvae tunnels in them. Such tunneling weakens the ear shank, allowing it to collapse, and can ultimately also cause eardroppage from the plant.

(Continued on Page 4.)

Weather Data

Week ending Sunday September 5, 1999

Station	Past Week Weather Summary Data							Accumulation				
								April 1, 1999 thru September 5, 1999				
	Air Temperature				Precip.		Avg 4 in Soil	Precipitation		GDD Base 50°F		
	Hi	Lo	Avg	DFN	Total	Days	Temp	Total	DFN	Days	Total	DFN
Northwest(1)												
Valparaiso_Ag	91	50	70	+3	0.00	0		18.33	-2.22	59	2743	+320
Wanatah	95	41	66	-2	0.00	0	79	18.03	-1.95	60	2324	+5
Wheatfield	93	47	69	+3	0.00	0		23.13	+3.64	52	2761	+387
Winamac	92	50	70	+3	0.00	0	78	18.50	-1.21	48	2770	+325
North Central(2)												
Logansport	93	52	71	+3	0.00	0		18.09	-0.81	62	2823	+307
Plymouth	92	51	69	+1	0.00	0		21.06	+1.17	64	2724	+159
South_Bend	92	50	71	+4	0.00	0		17.70	-1.55	52	2873	+462
Young_America	85	64	74	+6	0.00	0		M	M	M	M	M
Northeast(3)												
Bluffton	91	50	70	+1	0.00	0	72	17.17	-1.71	54	2849	+268
Fort_Wayne	91	50	69	+0	0.01	1		15.27	-2.46	56	2802	+283
West Central(4)												
Crawfordsville	96	45	70	+0	0.00	0	73	14.93	-5.92	59	2645	-50
Perrysville	95	50	71	+3	0.00	0	81	15.30	-5.78	53	2852	+211
Terre_Haute_Ag	98	53	75	+4	0.00	0	80	16.58	-4.37	56	3260	+445
W_Lafayette_6NW	94	50	71	+3	0.00	0	79	19.15	-0.50	55	2860	+356
Central(5)												
Castleton	93	52	71	+1	0.00	0		16.74	-3.65	67	2988	+208
Greenfield	95	51	71	+2	0.00	0		13.66	-8.09	59	2961	+282
Indianapolis_AP	94	54	74	+4	0.00	0		15.16	-4.64	58	3147	+353
Indianapolis_SE	93	52	72	+1	0.00	0		14.48	-5.91	63	2888	+108
Tipton_Ag	93	49	69	+1	0.00	0	72	14.48	-5.48	52	2631	+198
East Central(6)												
Farmland	95	46	69	+2	0.00	0	68	15.93	-3.43	59	2755	+379
New_Castle	92	48	69	+1	0.00	0		15.87	-5.06	59	2551	+117
Southwest(7)												
Dubois_Ag	99	48	73	+3	0.00	0	82	18.39	-4.45	52	3127	+289
Evansville	97	53	76	+3	0.00	0		18.67	-1.24	54	3378	+140
Freelandville	96	52	74	+3	0.00	0		21.45	+0.70	52	3105	+197
Shoals	95	50	72	+2	0.00	0		18.13	-4.41	47	2980	+164
Vincennes_5NE	97	50	74	+4	0.00	0	75	20.82	+0.07	69	3214	+306
South Central(8)												
Bloomington	95	48	73	+3	0.00	0		15.78	-5.55	49	3129	+274
Tell_City	97	56	78	+5	0.00	0		16.37	-6.51	46	3504	+394
Southeast(9)												
Butlerville	95	47	70	-2	0.00	0	77	17.63	-3.18	64	3030	+138
Scottsburg	97	48	73	+2	0.00	0		15.12	-6.34	45	3215	+320

DFN = Departure From Normal (Using 1961-90 Normals Period).
GDD = Growing Degree Days.
Precipitation (rain or melted snow/ice) in inches.
Precipitation Days = Days with precipitation of 0.01 inch or more.
Air Temperatures in Degrees Fahrenheit.
M = Missing

Impact on Yield?

Remember that the ear shank is the final "pipeline" for the flow of photosynthates into the developing ear. An ear shank that collapses prior to physiological maturity will greatly restrict, if not totally prevent, the completion of grain fill for that ear and will likely cause premature black layer development in the grain. If the droopy ears you've looked have not black layered yet, they will soon.

The timing of the onset of droopy ears determines the magnitude of the expected yield loss. If grain fill were totally shut down at the full dent stage of grain development (milk line barely visible), the yield loss would be as much as 40 percent. If grain fill were totally shut down at the late dent stage of grain development (milk line halfway between dent and tip), yield losses for the affected ears would equal about 12 percent.

Multiplying the percentage of affected ears in a field by the estimated yield loss per ear will give you an estimate of whole field loss. For example, if ten percent of the field contained plants whose ears drooped prematurely at the late dent stage, whole field loss would be estimated at 1.2 percent (10 percent of the ears multiplied by 12 percent yield loss per ear).

--Bob Nielsen, Corn Specialist, Purdue University

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